Apparatus Licence

Issued by Delegate of the Australian Communications and Media Authority

Licensee details

Customer ID	20013687
Licensee	SYDNEY TRAINS
Licensee address	Attn: Mr Christopher Go Level 2, Clyde Hub, 146-148 Manchester Road, Clyde, NSW 2142

Licence details

Licence service	Land Mobile
Licence subservice	Land Mobile System - > 30MHz
Licence number	1233806/1
Callsign	VL2RW
Date of issue	04/12/2023
Date of effect	04/12/2023
Date of expiry	01/12/2024

Licence conditions

Your licence is subject to conditions set out in the *Radiocommunications Act 1992*. Your licence may also be subject to such other licence conditions as determined by the ACMA (in licence condition determinations) from time to time, and is also subject to special conditions as detailed on this licence.

The conditions that are imposed on a licence vary according to the type of licence issued, the service being operated and the section of the *Radiocommunications Act 1992* under which the licence has been issued. For further information about the conditions that apply to your licence, please contact the ACMA (see contact details below).

Rights of appeal

A decision by the ACMA to impose further conditions or revoke or vary the conditions of your licence may be reviewable. If you are affected by, and dissatisfied with, such a decision you may apply to the ACMA to have the ACMA reconsider the decision under section 288 of the *Radiocommunications Act 1992*.

An application for reconsideration must state the reasons for the request, and should be sent to the Customer Service Centre, Australian Communications and Media Authority, PO Box 78, Belconnen, ACT, 2616. Applications for review of decisions can be made using the R051 - Application for review of Decision form, available on the ACMA website.

Important

An application for the ACMA to reconsider a decision to impose or vary licence conditions must be made to the ACMA within 28 days of the day on which you are informed of the decision. An application for reconsideration made after that time may not be accepted.

ACMA contact details

Customer Service Centre
PO Box 78
BELCONNEN ACT 2616

Telephone: 1300 850 115
Email: info@acma.gov.au

ACMA website: www.acma.gov.au

Certain information contained in this licence record will be disclosed in the Register of Radiocommunications Licences (RRL), established and maintained pursuant to Part 3.5 of the *Radiocommunications Act 1992.*

Advisory Notes applying to licence no.: 1233806/1

Conditions applicable to the operation of Land Mobile System station(s) authorised under this licence can be found in the Radiocommunications Licence Conditions (Apparatus Licence) Determination and the Radiocommunications Licence Conditions (Land Mobile Licence) Determination. Copies of these determinations are available from the ACMA and from the ACMA home page (www.acma.gov.au).

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Main Station Site **Station 1:**

Site details	
Site ID	5447
Site address	Caringbah Railway Station, CARINGBAH NSW 2229
Co-ordinates (GDA94)	Latitude: -34.04124505 Longitude: 151.1219074

Transmitter details	
Assigned frequency	418.162500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690921
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	1
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Receiver details	
Assigned frequency	408.712500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690924
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	1
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Unknown antenna type, size or specifications-

Special Conditions applying to Station 1

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site — Station 2:

Site details	
Site ID	40165
Site address	Railway Station, MOUNT KURING-GAI NSW 2080
Co-ordinates (GDA94)	Latitude: -33.65381176 Longitude: 151.13640732

Transmitter details	
Assigned frequency	418.162500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690909
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.712500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690910
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 2

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site — Station 3:

Site details	
Site ID	40169
Site address	Railway Station, ARTARMON NSW 2064
Co-ordinates (GDA94)	Latitude: -33.80984402 Longitude: 151.18682546

Transmitter details	
Assigned frequency	418.162500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690911
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.712500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690912
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 3

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site — Station 4:

Site details	
Site ID	54264
Site address	Railway Station, FAIRFIELD NSW 2165
Co-ordinates (GDA94)	Latitude: -33.8721675 Longitude: 150.95719954

Transmitter details	
Assigned frequency	418.162500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690913
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.712500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690914
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 4

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site — Station 5:

Site details	
Site ID	54350
Site address	Railway Station, CAMPSIE NSW 2194
Co-ordinates (GDA94)	Latitude: -33.91056492 Longitude: 151.1028245

Transmitter details	
Assigned frequency	418.162500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690915
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.712500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690916
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 5

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site — Station 6:

Site details	
Site ID	54476
Site address	Railway Station, WINDSOR NSW 2756
Co-ordinates (GDA94)	Latitude: -33.61361812 Longitude: 150.81099855

Transmitter details	
Assigned frequency	418.162500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690917
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.712500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690918
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN
Antenna details	
Antenna ID	7
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 6

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site — Station 7:

Site details	
Site ID	203058
Site address	SRA Comms Room, FLEMINGTON NSW 2140
Co-ordinates (GDA94)	Latitude: -33.86208529 Longitude: 151.05866253

Transmitter details	
Assigned frequency	418.162500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690919
Transmitter power	10.00 W
EIRP	41.00 W
Emission designator	10K1F3E
Antenna details	
Antenna ID	4
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Corner Reflector (Horizontal Polarisation)-R

Receiver details	
Assigned frequency	408.712500 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000690920
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F3E
Antenna details	
Antenna ID	4
Antenna polarisation	H - Horizontal linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Corner Reflector (Horizontal Polarisation)-R

Special Conditions applying to Station 7

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

When the transmitter is coupled to an antenna the level of all discrete spurious components caused by the transmitter & measured at the connection to the antenna must not exceed -30 DBM. Broadband noise floor of the transmitter measured at the same point must not exceed -47 DBM in a 16 kHz bandwidth for frequency offsets greater than 300 kHz from the transmit frequency.